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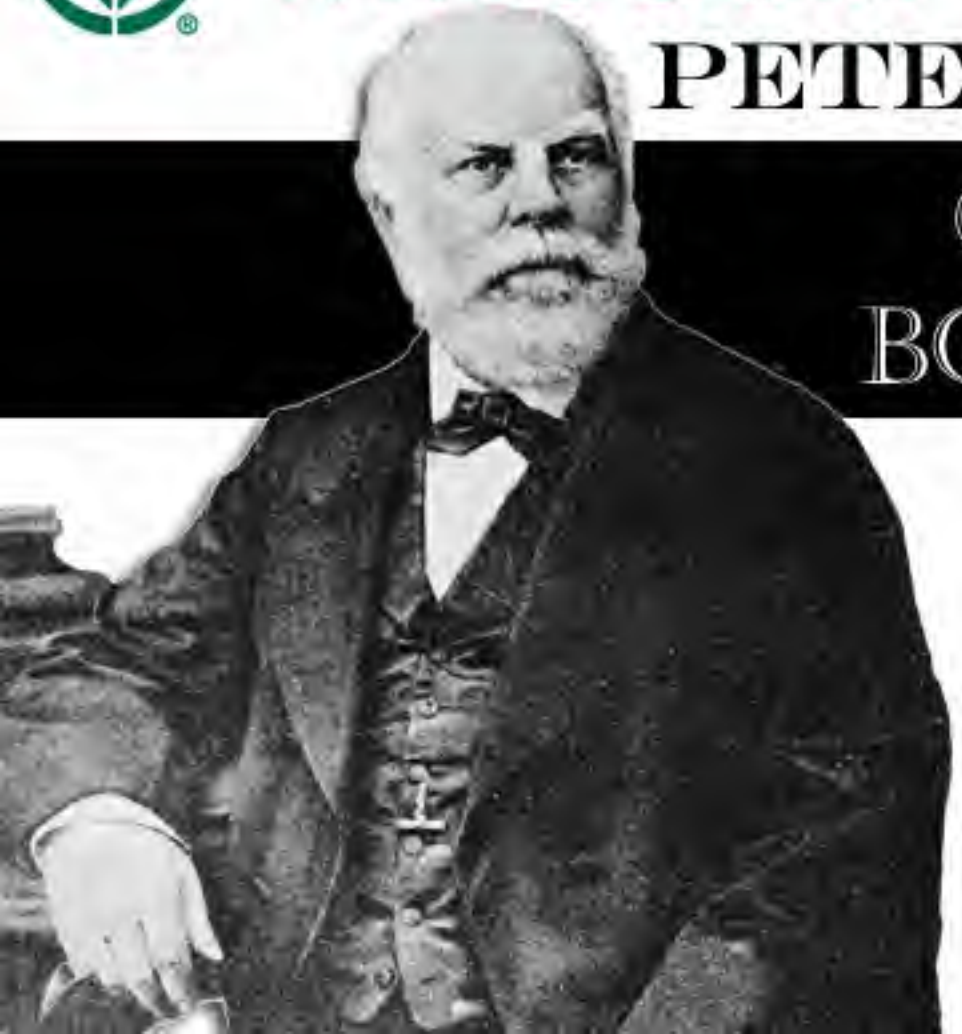
George Engelmann Botanical Notebooks



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…two lions" empty.

Then I became convinced that Handyside Marbury was a thief. He had dogged these two women, and he had stolen this jewel which Mary, after the fashion of women, had left on her pincushion or dressing table.

I met the ladies of course after dinner, and found them both glad to see me. Mrs. Jessamine was somewhat agitated over a robbery she had suffered from in Paris, and talked of a hundred Napoleons which had gone as if they were ten thousand.

So I was right. Mary had put on her gloves as I approached her; she did not want me to see her loss, I suppose.

When I had an opportunity to speak with her alone, she told me that the Carter engagement was broken off, and that Mrs. Jessamine was very sad about it. Mr. Carter had reluctated at the very stringent leading strings into which Mrs Jessamine had proposed putting him. The ladies al-

…ne, tell … What … you know about it?"

It was now my turn to be agitated. She referred undoubtedly to the burglary in Paris, and what did I know about it? Had I not become at once and most innocently a very important link in the chain of evidence? and did I wish to give up poor shabby old Handyside Marbury on a mere suspicion? for was it not altogether possible that he *had* found a facsimile of the ring instead of stealing it? and yet, if I told the whole truth, I was in honor bound to share the suspicions I had of this man with Mrs. Jessamine.

Mary looked at me so piteously that I hastened to put her out of pain, and determined at the same moment not to implicate Marbury. I told her part of the truth; which was, that I had found the ring in Geneva, and that I had conversed with the jeweller about it, not forgetting his ingenious suggestion that the ring was one of many, probably the badge of a se-

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Missouri Botanical Garden
George Engelmann Papers

ful consultation of the hotel books convinced me that they were not in the city of Calvin. I went sauntering down through the jewellers' shops one idle afternoon, and in a small one in an obscure street I found Handyside Marbury.

He was more shabby than I had ever seen him. Pale and forlorn, and hungry looking, the friend of Leo X., and of Lorenzo da Medici, the apologist of Hypatia, the man of grand ideas and slender resources was at the end of his forlorn fortunes.

He was attempting to dispose of a piece of jewelry when I entered, to a haggling shopman, who was attentively examining the article.

Handyside greeted me with enthusiasm, and told me that he had been lying ill at Geneva for a month, and that his letters having failed to arrive, etc., he was obliged to sell some few little "objets" which he had collected in his travels.

aqueous co… …as messages. See wha… a cunning, malignant expression the old lion has, with his diamond eyes!"

"How much is it worth to you?" said he, suddenly dropping from the fifteenth to the nineteenth century.

"May I become the purchaser?" I asked. "I would like to bring the two rings together."

"Certainly," said Marbury, magnificently. So the jeweller not having to pay for it himself, put a very good price on the ring, and I became its owner, as I believed for the second time, and the old lion winked at me confidentially.

And yet how was that possible? What connection could there be between this disreputable old man and my beautiful Mary? Was he a thief, and had he hung about the party of which (by his interest in Mrs. Jessamine) he evidently knew something, until he could despoil them of their watches and rings? Or was the other supposi-

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Pinus Brutia Tenore! Lime 1864

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Pollen defective

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leaves 5–8 inches long in pairs, slender,
distantly and very slightly serrulate
bracts 3 lines long, fimbriately ciliate very
deciduous (with the evolution of leaves?)
male inflorescence abt 1 inch long axis
1 inch in diameter.
aments 6–7 lines long, cylindric, with
8 involucral scales

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August 19, 1861.

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ARTHUR T. HOLLISTER,
Photographer,
Botanical Garden, St. Louis, Mo.

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ARTHUR T. HOLLISTER,

Druggist,

301 South Fifth, S. W. Cor. 5th & Myrtle, St. Louis, Mo.

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Pinus ponderosa

Dec 5 / 1874

Empire Sept 1874

Embryo x10

9 short, thick, Cotyledons
mostly 8,
once 6 Cotyl.

11610

HENRY EHRHARDT,

PHARMACEUTICAL CHEMIST,

No. 301 South Fifth Street, Cor. Myrtle, ST. LOUIS.

No. *Date* 187

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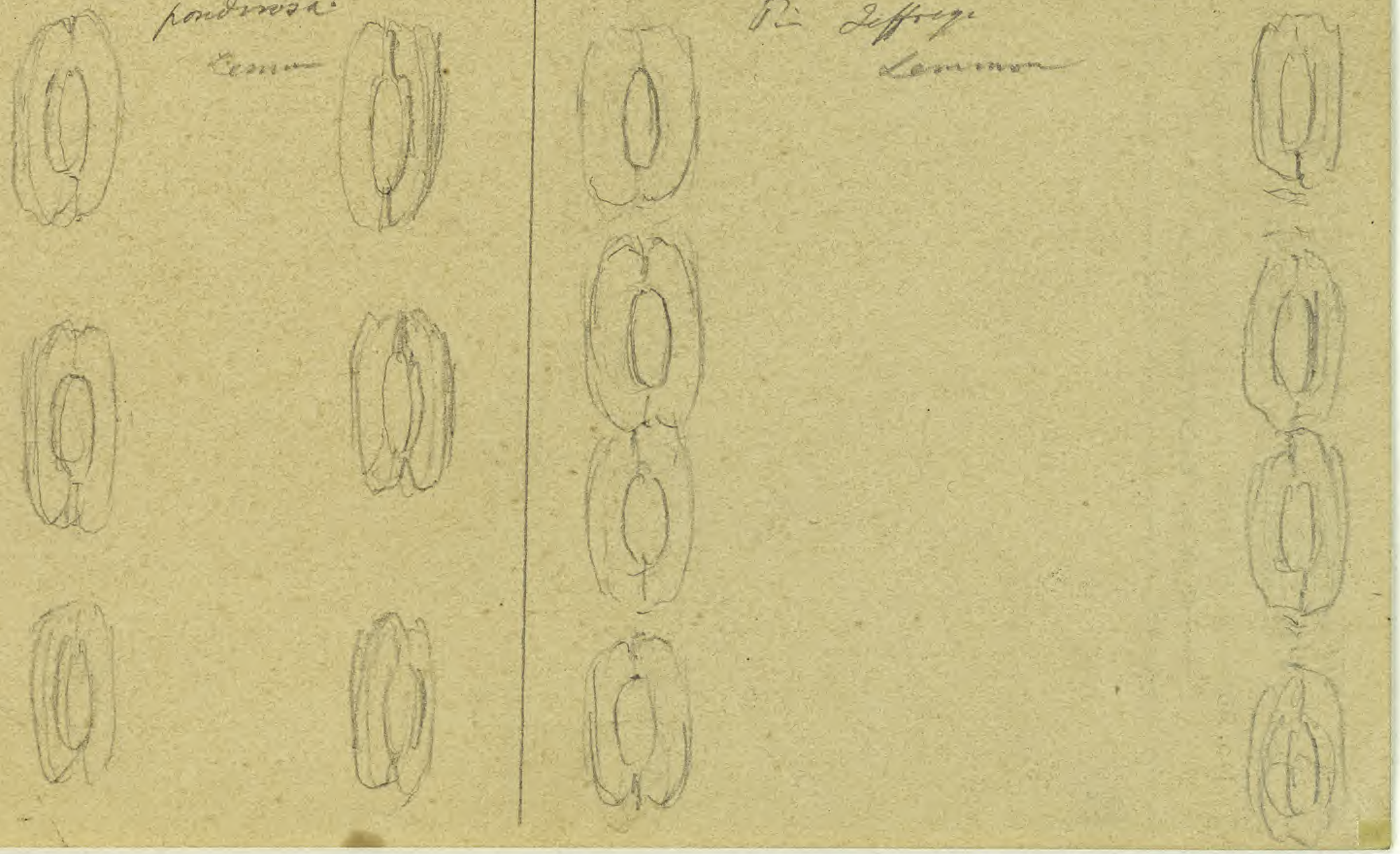
stomata on lower surface

March 6 1878

Pi pondrosa Lemmon

Pi Jeffreyi Lemmon



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so transparent that Venus may sometimes be distinguished at midday, and in the interior of Africa night succeeds day almost immediately after sunset. At Cumna, Humboldt tells us, twilight lasts but a very few minutes, although the atmosphere is higher under the tropics than in other regions.

In warm countries the presence of humidity in the air not only gives to the sky the dark azure tint, but also has the effect of modifying the vital power of the solar rays. At the Equator it adds to the thousand other wonders of nature an incomparably beautiful display of light both at sunrise and sunset. The sunset, in particular, affords a spectacle indescribably magnificent—a superiority over sunrise attributable to the presence of moisture in the air. This is more abundant in the evening, after the heat of the day, than in the morning, when it is partially condensed into dew by the effect of the cooler temperature of night."

"One of the greatest charms of twilight is the varied and endless gorgeous coloring of the clouds, which accompanies the setting of the sun. But it is not in our climate that the finest sunsets are seen. The celestial blue of distant mountains, the rose or violet tints which in turn tinge the nearer hills, and the warm tones of the soil, harmonize in a marvellous manner, when the sun disappears below the horizon, with the gleaning gold of the West, the red," purple, gold and roseate tints that dapple each cloud, or "that crown it in the sky, the dark azure of the Zenith, and the more sombre and often, in contrast to the others, greenish hue which prevails in the east. In the equinoctial regions these soft and delicate tints, joined to the varied aspect of the earth's configuration and the richness of vegetation, produce more striking "and gorgeous" effects than with us. Sometimes light and roseate clouds, fringed with a coppery red, produce peculiar effects, similar to certain sunsets in our regions; but whenever the sky is clear the shades differ entirely from those of the temperate zone, and present a special character. Sometimes, too, the indentations of mountains situated below the horizon, or invisible clouds intercepting a part of the solar rays which, after sunset, still reach the elevated regions of the atmosphere, give rise to the curious phenomena of crepuscular rays.

"Then may be seen, starting from the point where the sun has disappeared, a series of rays, or rather of diverging" "glories," "which sometimes extend as far as 90°, and even in some instances are prolonged as far as the point opposite the sun. Upon tbe ocean, as M. Liais remarks, where the sky near the equator, is free from clouds in the visible part, and when the diverging rays mingle with the crepuscular arcs, the play of light assumes a form and brilliance which defy all description or pictorial illustration. How, indeed, is it possible to depict completely the rosy tints of the arc fringed by the crepuscular rays that border the segment which is still strongly lighted up from the west, the segment itself being tinged with a bright gold hue? How, above all, is it possible to describe the tint of an inimitable blue, different from that of noonday, and occupying that portion of the sky which is included between the ordinary azure and the crepuscular arc?" *

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* Flammarions atmosphere.

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"To all this splendor of the western sky must be added the description of its fires as reflected upon the surface of the waters agitated by the trade wind, the dark blue of the sea to the east, the white foam of the waves, which sharply defines upon this gloomy background the pale roseate arc of the eastern sky, and the sombre and greenish segment of the horizon."

"What spectacle can be more sublime than a sunset at sea," the fleecy cirro-cumuli clouds that nearly always accompany the setting sun, tinted with the myriad of charming, brilliant and changing colors, are reflected in the transparent bosom of the heaving sea, which seems a duplicate and gorgeous heaven below.

In North America the sunsets are particularly gorgeous. Often the entire heavens are dappled with clouds tinted with the most brilliant shades of gold, crimson, purple, green, and bronze, blendend and harmonized with an endless variety of the most exquisite shades and colors, add to all this the charming and magnificent spectale when the above gorgeous display in the heavens is reflected and duplicated in the tranquil bosom of a clear sheet of water, and the result is a scene of splendor seldom equalled upon this earth. To all this brilliant display is sometimes added broad bands of gold and crimson light, which, starting from the point where the setting sun disappeared, diverge and extend across the heavens in splendid and magnificent glory for 90°, or more frequently beyond the very zenith itself.

The light which accompanies or is the cause of twilight is occasioned by the reflection of the sun's rays, when below the horizon, from the vapors and minute solid particles floating in the atmosphere, "and perhaps from the material atoms of the air itself." It is to this property of reflection possessed by the atmosphere that its illumination is due beyond the direct reach of the rays proceeding from the sun, as under the shadow of clouds and behind opaque objects upon the sur face, where, unless the light were directed upon some principle of general diffu sion, intense darkness would prevail." "So also a sudden illumination woul attend the rising of the sun, and instantaneous darkness accompany hi setting."

"As the sun sets to any point upon the surface of the earth, the atmo phere above this point all around the horizon is illuminated by direct rays, an the reflection from so broad an illuminated surface brings down to the earth large amount of light, but as the dark shadow of the earth, in consequence the continued sinking of the sun rises higher and higher into the atmosphere this locality, the reflected light steadily diminishes and finally disappears when direct rays from the sun reach the higher regions of the atmosphere above t horizontal line extended toward the sunset." "By observing the time after t setting of the sun to the disappearance of the reflected rays, data afforded upon which an approximate estimate may be made of the height of atmosphere."

On the Equator the duration of twilight is one hour and twelve minut here the sun being upon the equinoctial, and apparently descends vertically, oc

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Tilesius,—
Acclimata-

following
Dr. John

Evans:

Dr. John Evans.—The subject of the present sketch, whose death was announced at a former meeting of the Academy, was the son of Hon. Richard Evans, Judge of the Supreme Court of Massachusetts. He was born at Portsmouth, Feb. 14, 1812, and educated at Andover, Massachusetts. Early in life he entered a commercial house in the latter State, and for several years devoted himself assiduously to mercantile pursuits. He then removed to Washington City, and for many years acted as clerk in the Post Office Department and Auditor's Office. In 1835, he married a daughter of Robert Mills, Esq., Engineer and Government Architect of Washington.

Dr. Evans commenced active Geological pursuits during the year 1847, as a member of the Geological Corps sent out by the U. S. Government, under the direction of the late Dr. David Dale Owen, to explore the North-west Territory. While connected with that survey Dr. Evans rendered efficient service, and so much confidence was had in his ability, that in the autumn of 1849 he was detailed to make some important observations in the Upper Missouri country. During this tour Dr. Evans made an excursion to the celebrated Mauvaises Terres of Nebraska, and he has the credit of having been the first scientific explorer who visited those vast cemeteries of extinct animals which have excited

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dicin. Zeitschrift, II. Band, 1–2 Heft, 1861, *from the Soc*
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Weltenweb
Prag, 1859,
Offenbache
dicin. Zeits
gische Gart
the Editor;
1860, *from*

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The following publications were received:

The Great Comet of 1861, New Haven, 1861, (Extr. from Amer. Jour. of Sci. & Arts,) *from the Editors;* Catalogue of the Mammals, Reptiles, Birds, and Mollusks, of Michigan, by M. Miles, M.D., State Geologist, Lansing, *from the Author;* Rep. on the Fossil Flora of the Kentucky Coal Field, by Leo Lesquereux, 1861, *from the Author;* Synopsis of the Mollusca of the Cretaceous Formation, by W. M. Gabb, 1861, *from the Author.*

A letter was read from Dr. E. W. Hilgard, State Geologist of Mississippi, on the existence of gold in the conglomerate of Madison County, Mo. The writer stated that the occurrence of gold in that region had been doubted, but that a number of assays made by him showed this conglomerate to contain in a quantity of 7½ lbs., taken promiscuously from 150 lbs., 2½ grains of pure gold, corresponding to $22 per ton.

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[illegible] Prof. Dr. I.

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A letter was read from A. F. Bandelier, Jr., Highland, Ill., Aug. 1, 1861, communicating meteorological observations at Highland.

The following donations to the library were received:

Bull. de la Société Géologique de France, Ser. ii., T. XVIII., Feuilles 13–14, 22–31, Paris, 1861, *from the Society;* Proc. Amer. Phil. Society, Philad., Vol. XVIII., No. 65, 1861, *from the Society;* Jour. Franklin Inst., Philad., Aug. 1861, *from the Institute;* Proc. [illegible] Sciences, Philad., [illegible] *from the Acad* [illegible] on Bayern [illegible] el München [illegible]

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236 Vrolik, G., Nieuw voorbeeld v. 2 uitgegroeide stoottanden aan denz. narwalschedel. (Amst. 1858?) Avec pl. gr. in-4⁰.

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237 **Baird Spencer, F.,** The **Birds** of North-America. Edit. w. the coperat. of J. Cassin and G. N. Lawrence. Philad. 1860. 2 vol. Av. Atlas de 100 pl. superbes color. dem. veau. 4⁰.
Très bel exempl.

238 **Buffon** et **Montbéliard,** Histoire naturelle des **Oiseaux.** Paris. 1770—86. 10 vol. dem. veau. *Non rogné.* gr. in-fol.
Exempl. en GRAND PAP. de cet ouvrage superbe, orné de 1008 belles planches enluminées.

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240 **Edwards, G.,** Histoire natur. **d'Oiseaux** peu communs et d'autres animaux rares et qui n'ont pas été decrits. Londr. 1751. Av. 210 pl. col. 4⁰.
—— — **Glanures** d'hist. nat., consist. de quadrupèdes, d'oiseaux, d'insectes, etc. Lond. 1758-64. 3 vol. Avec 152 pl. col. 4⁰.
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Exempl. superbe; 8 vol. reliés unif. en vieux maroq. rouge, richement doré sur plat et tranche; entièrement complet avec tous les titres, etc.

241 Fitzinger, L. J., Ueb. System u. Charakterist. d. natürl. Familien d. Vögel. Abtheil. II, III. (Wien. 1861, 62.) 2 prt. 8⁰.

[illegible]mery, P. J. [illegible] de, [illegible] vatt. de Casuario novae Hollandiae. Traj.

243 **Gray, G. R.,** The **Genera of Birds,** comprising their generic characters, a notice of the habits of each genus, and an extensive list of species, referred to their several genera. Illustrated by *D. W. Mitchell.* With Appendix and Index. Lond. 1844—49. 3 vol. dem. mar. rouge, la tr. supér. doré. fol.
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244 Klein, J. Th., Historiae avium prodr. Lub. 1750. Av. 8 pl. — Id. Quadrupedum dispositio. Lps. 1751. Av. 4 pl. 1 vol. veau. 4⁰.

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249 **Le Vaillant, F.,** Histoire naturelle des **Oiseaux de Paradis** et des Colliers; suivie de celles des Toncans et des Barbus. Paris. 1806. 2 vol. dos et coins en mar. rouge, doré s. tr. gr. in-fol.
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225 **Cètacés.** Bonnaterre, Cétologie. Par. 1789. Av. 74 pl. 4⁰.

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227 Cuvier, Histoire natur. d. Cétacés. Paris. 1836. Av. 22 pl. dem. veau. 8⁰.

228 Eschricht, D. F., Undersögelser over Hvaldyrene (Cétacés). Kjöbenh. 1844—46. 5 part. av. pl. 1 vol. dem. veau. 4⁰.

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230 Jong, D. de, Kobel en Salieth, Nieuwe beschrijv. d. Walvischvangst en Haringvisscherij. Amst. 1791. 4 prt. Av. 21 pl. et cartes. 4⁰.

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234 Sonnini, Histoire natur. d. Cétacés. Par. 1803. Av. pl. dem. toile. 8⁰.

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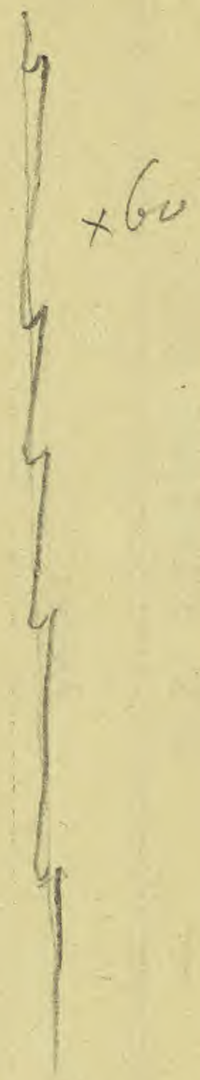
"P. filifolia"
Ort. Mex. 1857

May 30 1878

2 lateral parenchyma duct
one upper intrusive one



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May 1848

Pinus leiophylla vera Fol. 3 - 4 1/2 (-5)
vaginis longis deciduis
ament. fem apical

Gregg. 821 & 698 b
Schiede in Ho Bork 1109
Chrenberg 1023 (618) Hb. B. 617 - 558 - 559
Lehde Hb. 553 - 561
Royl: Commonfortii 4" long
Monte Allegri 5-5 1/2" long
Oaxaca Chi — 3" long
DeCandolleana 5 1/2"

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"Pi Cenophylla" fide Bentham & Hooker — May 1878

Hartweg fol Conga

vagin. persistens (= patula?) inv. velut.

Hartweg 441 fol 6-7"

Ehrenberg 630 & 631 6-7

Rhode H Berol 554. fol 6"

Heller = Hb. Vindob. Toluca

Haenke Hb Prag Mex occid.

patula 3-locul; sheathing somewhat deciduous

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Late Taxidermist in
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Taxidermist and Assistant in Comparative Anatomy.

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WILLIAM W. RHOADES,
AUGUSTUS F. MILLER,
Lieutenants United States Navy,
Instructors in Navigation and Seamanship.

GENERAL DANIEL MACAULEY,
Indiana,
Military Commandart.

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UT.-COM. A. S. CROWNINSHI
UT. C. T. HUTCHINS, U. S
UT. W. W. RHOADES, U. S
UT. F. A. MILLER, U. S. N
GEON J. H. KIDDER, U. S
J. HERDMAN, M. D., . . .
DR. ALBERT SCHAFFTER,
D. DOUGLASS, ...
With a full complement

E—Some of these officers have not y
but all have been conditionally eng

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Officers of the Vessel.

COMMANDER JOHN W. PHILIP, U. S. N., ... Commanding.
LIEUT.-COM. A. S. CROWNINSHIELD, U. S. N., . Executive Officer.
LIEUT. C. T. HUTCHINS, U. S. N., ... Watch Officer.
LIEUT. W. W. RHOADES, U. S. N., ... Watch Officer.
LIEUT. F. A. MILLER, U. S. N., ... Watch Officer.
SURGEON J. H. KIDDER, U. S. N., ... Medical Officer.
W. J. HERDMAN, M. D., ... Assistant Medical Officer.
REV. DR. ALBERT SCHAFFTER, ... Chaplain.
A. D. DOUGLASS, ... Chief Engineer.

With a full complement of petty officers and crew.

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Professor of Modern Languages and Comparative Literature,
University of Berne, Switzerland,
Professor of History and Geography.

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unintermittent in its action than any other physical or chemical agency, it is also capable of wider variation in its composition and properties than the other agencies which effect the well-being of the human frame. In our consideration of the various agencies which influence health and disease, we have given too little prominence to the variations in the composition and properties of this pervasive and primal condition of animal life. Some attention has been called to the change in its properties by local contamination, by respiration, the want of ventilation, and the influence of exhalations from decomposing organic matter. I would not undervalue the importance of the results thus obtained. But the atmosphere needs to be studied, not alone in its restricted changes in dwellings, but in the significant changes which are found in the great mass of the atmosphere, which is not enclosed by roof and walls, not bounded by city limits and corporation lines. The air which fills "all out-doors" should be studied even more carefully than the air found "in-doors." The regional and seasonal changes in its composition and physicial properties, and the relations of these changes to health and disease, demand a careful and patient investigation at the hands of the medical profession.

Something has already been accomplished in this direction. The attention

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ages, but is stlil in the vigor of strength and potent for destruction. After toiling for ages his works were entirely detroyed by the obliterating influence of a continental glacier. After the æon of ice and gelidity was past, like Newton when the laborious calculations of years were destroyed by his dog "Diamond" upsetting a lighted taper on his desk, Thomas Carlyle, when the first volume of his History of the French Revolution was destroyed by the reckless servant of a careless friend to whom he had loaned the MS. for perusal, or Robert Ainsworth, after the voluminous dictionary of the Latin language, upon which he spent many years of hard labor, was thrown into the fire by his vixen wife,—the invincible and indefatiguable destroyer sat cheerfully to work, and what has since been accomplished is the wonder of the world.

The mighty Mississippi, as it rolls on towards the Great Ocean, bears with it sediments constituting "a whole museum of soils, gathered from the fertile farms of New York and Pennsylvania—from the sandy cliffs of the great Kenawha—from the clayey slopes of Cincinnati—from the slimy borders of Lake Pepin—from the melon-patch of a Cheyenne squaw, and from the beetling cliffs of the Yellowstone." The formerly formidable Colorado, now but a mere wreck of what it once was, still prowls around the base of the towering cliffs which rise above it

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Dr. Koch presented specimens of quartz and of the silicious conglomerate from Madison County mentioned in Dr. Hilgard's letter.

Dr. Engelmann stated that the mean temperature of July (77.°5) had been lower than the usual mean of that month, and that the fall of rain during the same month (2.04 inches) was about one-half less than usual.

Dr. Wislizenus stated that the mean of atmospheric electricity of July had been 3.5° less than that of the month previous, and that the amount had been gradually decreasing since winter.

August 19, 1861.

The President, Dr. ENGELMANN, in the chair.

Six members present.

A letter was read from A. F. Bandelier, Jr., Highland, Ill., Aug. 1, 1861, communicating meteorological observations at Highland.

The following donations to the library were received:

Bull. de la Société Géologique de France, Ser. ii., T. XVIII., Feuilles 4, 22–31, Paris, 1861, *from the Society;* Proc. Amer. Phil. Society, d., Vol. XVIII., No. 65, 1861, *from the Society;* Jour. Franklin Inst., d.. A.. 18.. *the Institute;* Proc. Acad Nat. Sci.. s, Philad., 1 ode

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THE RAVAGES OF OLD OCEAN.

BY J. MANFORD KERR.

Constant and unintermittent change in all things, is the order of the universe. Nothing is stable. Nothing is durable. The seasons constantly come and go; Summer succeeds to Spring, Winter to Autumn, and each is accompanied by marked peculiarities which apprize us of unabating change. In the Spring herbs spring, trees bud, and flowers bloom; the sultry Summer beholds fully displayed the rich magnificence of vernal nature, and the dwellers *in pair* luxuriate in a terrestrial paradise of beautiful flowers, delicious aromas, and enchanting coral-lings; yellow Autumn's chilling frosts destroy the beauties and ripen the fruits of Summer, while succeeding Winter from his hoary locks shakes snow and desola-tion o'er all nature, locks her productive powers in icy fetters, and all animation in dreary solitude.

The children of men are born into the world, and after an ephemeral sojourn,

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contrary the holes of the *H. riparia* are very symmetrical ellipses, with the longer axis horizontal, and not larger than is needful to permit free ingress and egress of the birds. I have never yet, in this locality, found a Bank Swallow's hole large enough to admit the hand, without enlarging, while the nest of the Rough-wings can generally be reached without any trouble, except when built in masonry. In this case they will pass through a crevice barely large enough to admit their bodies, providing there is a cavity within large enough to contain the nest.

The nests of *H. serripennis* are *generally* much more carelessly built than those of *H. riparia;* thay do not seem to go any distance for their materials, but appear to pick up anything suitable which they can find within a few rods of their habitation. The nests of the two species are composed of nearly the same substances, but those of *H. riparia* exhibit a greater variety in the same nests, for, as they build in large colonies, they are obliged to search for materials in different places. On one occasion I remember finding a nest of *H. serripennis* composed entirely of feathers of domestic fowls. It was built in a deserted Kingfisher's hole, in a sand bank, about fifteen rods from a barn-yard, in which fowls were constantly kept. At another time I found three fresh eggs lying on the bare sand; the hole was a mere pocket, barely six inches deep. In this case the female bird was probably under so great a necessity that she did not have time to construct a nest in the usual manner, but had

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Statuten des Münchener Vereins für Natur-K., 1849, von G. Thesius,—Isis No. 2, 1850, *from the Society;* Bull. de la Soc. Imp. zool. d'Acclimatation, Paris, T. VIII., No. 6, 1861, *from the Society.*

Mr. Holmes read from Dr. B. F. Shumard the following sketch of the life and scientific labors of the late Dr. John Evans:

Dr. John Evans.—The subject of the present sketch, whose death was announced at a former meeting of the Academy, was the son of Hon. Richard Evans, Judge of the Supreme Court of Massachusetts. He was born at Portsmouth, Feb. 14, 1812, and educated at Andover, Massachusetts. Early in life he entered a commercial house in the latter State, and for several years devoted himself assiduously to mercantile pursuits. He then removed to Washington City, and for many years acted as clerk in the Post Office Department and Auditor's Office. In 1835, he married a daughter of Robert Mills, Esq., Engineer and Government Architect of Washington.

Dr. Evans commenced active Geological pursuits during the year 1847, as a member of the Geological Corps sent out by the U. S. Government, under the direction of the late Dr. David Dale Owen, to explore the North-west Territory. While connected with that survey Dr. Evans rendered efficient service, and so much confidence was had in his ability, that in the autumn of 1849 he was detailed to make some important observations in the Upper Missouri country. During this tour Dr. Evans made an excursion to the celebrated Mauvaises Terres of Nebraska, and he has the credit of having been the first scientific explorer who visited those vast cemeteries of extinct animals which have excited

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August 5, 1861.

The President, Dr. ENGELMANN, in the chair.

Seven members present.

The following publications were received:

The Great Comet of 1861, New Haven, 1861, (Extr. from Amer. Jour. of Sci. & Arts,) *from the Editors;* Catalogue of the Mammals, Reptiles, Birds, and Mollusks, of Michigan, by M. Miles, M.D., State Geologist, Lansing, *from the Author;* Rep. on the Fossil Flora of the Kentucky Coal Field, by Leo Lesquereux, 1861, *from the Author;* Synopsis of the Mollusca of the Cretaceous Formation, by W. M. Gabb, 1861, *from the Author.*

A letter was read from Dr. E. W. Hilgard, State Geologist of Mississippi, on the existence of gold in the conglomerate of Madison County, Mo. The writer stated that the occurrence of gold in that region had been doubted, but that a number of assays made by him showed this conglomerate to contain in a quantity of 7½ lbs., taken promiscuously from 150 lbs., 2½ grains of pure gold, corresponding to $22 per ton.

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reins zur Beförderung des Gartenbaues, 1860, Nos. 1–52—1861, Nos. 1–6, Berlin, *from the Society;* Atti della Societa Ital. di Scienze Nat., Milano, Vol. II., Fasc. 2, 1860, *from the Society;* Atti dell I. R. Istituto Veneto, T. V., Ser. iii., Disp. 10—T. VI., Ser. iii., Disp. 1–3, 1860–1, *from the Society;* Visir-und Recheninstrumente von Ernst Sedlaczeh, Wien, 1856,—Rechenschieber, von E. Sedlaczeh, Wien, 1856,—Kompendium der ebenen und sfärischen Trigonometrie von E. Sedlaczeh, Wien, 1856, *from Mr. Senoner;* L'Ortolano, Giornale Popolare d'Orticultura, Trieste, Anno I. 1–12, III. 1–9, 1859–60,—Allocuzione da Prof. Adolfo Stopice, Trieste, 1860, *from the Society;* Fr. Ambrosii Flora Tiroliæ Australis, Vol. II., Pt. 4, *from the Author;* Verhandl. des Naturh. Vereins, Bonn, Jahrg. XVII., 1–2, 1860, *from the Society;* Sitzungsb. der K. K. Akad der Wissenchaften, Wien, Band XLII., No. 22–28, 1860, *from the Society;* Nachrichten von der Georg-Augusts-Univ. u. der K. Gesellsch. der Wissensch., Göttingen, 1860, No. 1–29, *from the Society;* Bull. de la Société Linnéenne de Normandie, Vol. V., 1859–60, Caen, 1861, *from the Society;* Mém. de l'Acad. Imperiale de Metz, Ann. XLI., 1859–60, *from the Academy;* Jahrbücher des Vereins für Naturk. in Nassau, XIV. Heft, Wiesbaden, 1859, *from the Society;* Dr. J. C. Ed. Hoser's Rückblicke, Prag, 1848, von Dr. Weitenweber,—Sitzungsb. der K. böhm. Gesellsch. der Wissenschaften, Prag, 1859, Juli–Dec.—1860, Jan.–Juni, *from the Society;* I. Bericht des Offenbacher Vereins für Naturk, 1860, *from the Society;* Würzburger Medicin. Zeitschrift, II. Band, 1–2 Heft, 1861, *from the Society;* Der Zoologische Garten, von Dr. D. F. Weinland, Jahrg. II., No. 1–6, 1860–61, *from the Editor;* XX. Bericht über das Museum Francisco-Carolinum, Linz, 1860, *from the Institution;* Monatsb. der K. Preuss. Akad. der Wissenschaften, 1860, Berlin,—General Register, 1836-58, Berlin 1860, *from the Academy;* Gelehrte Anzeigen, Vol. 49 & 50,—Sitzu
Akad. des Wissenschaften, 1860, Heft 1–3, München,
Mitglieder, 1860,—Bedeutung der Sanskritstudien, vo
1860,—Denkrede auf. Alex. von Humboldt, von C.
1860,—Grenzen und Grenzgebiete der physikalischen
C. Harless, 1860, *from the Royal Academy;* Proc. Ac
Philad., May, 1861, *from the Academy;* 43d Ann. Rep.
the New York State Library, Albany, 1861, *from the*

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Field, by Leo L
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A letter wa
of Mississippi,

Dr. Koch presented specimens of quartz and of the silicious conglomerate from Madison County mentioned in Dr. Hilgard's letter.

Dr. Engelmann stated that the mean temperature of July (77.°5) had been lower than the usual mean of that month, and that the fall of rain during the same month (2.04 inches) was about one-half less than usual.

Dr. Wislizenus stated that the mean of atmospheric electricity of July had been 3.5° less than that of the month previous, and that the amount had been gradually decreasing since winter.

August 19, 1861.

The President, Dr. ENGELMANN, in the chair.

Six members present.

A letter was read from A. F. Bandelier, Jr., Highland, Ill., Aug. 1, 1861, communicating meteorological observations at Highland.

The following donations to the library were received:

Bull. de la Société Géologique de France, Ser. ii., T. XVIII., Feuilles 13–14, 22–31. Paris, 1861. *from the*

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June 1864

Linum Halepense from Valencia (Cosson)

bracts in very short, com (before fl.) deciduous,
lanceolate 1 line long, a stout base
(remaining sessile) persistent, causing asperity
sheath short 4 line long, adpressed (of very tender after the fall of leaves
apparently consisting of 8 leaves,
after the first summer deciduous, leaving
a short (1 line long) base

In flower at Algiers, Jan 6th (Cosson)

Inflorescence (single spike) about 10 lines long
acute oval — cylindrical 5 l. long
bract deciduous before the anthers open
4–5 involucral scales
erect
anthers extremely short — 1/2 – 3/4 line wide
1/4 line high, anther sheath about 1/8 line long
Pollen 0.037 – 0.040 l. or 0.090 – 0.096 mm long

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unripe Pollen
×415

"
0.029

0.028

Pinus Halepensis
H B Neapl

19 Octob 1863

8 March 1863

Young anul
×4

Bract short.

6 scales

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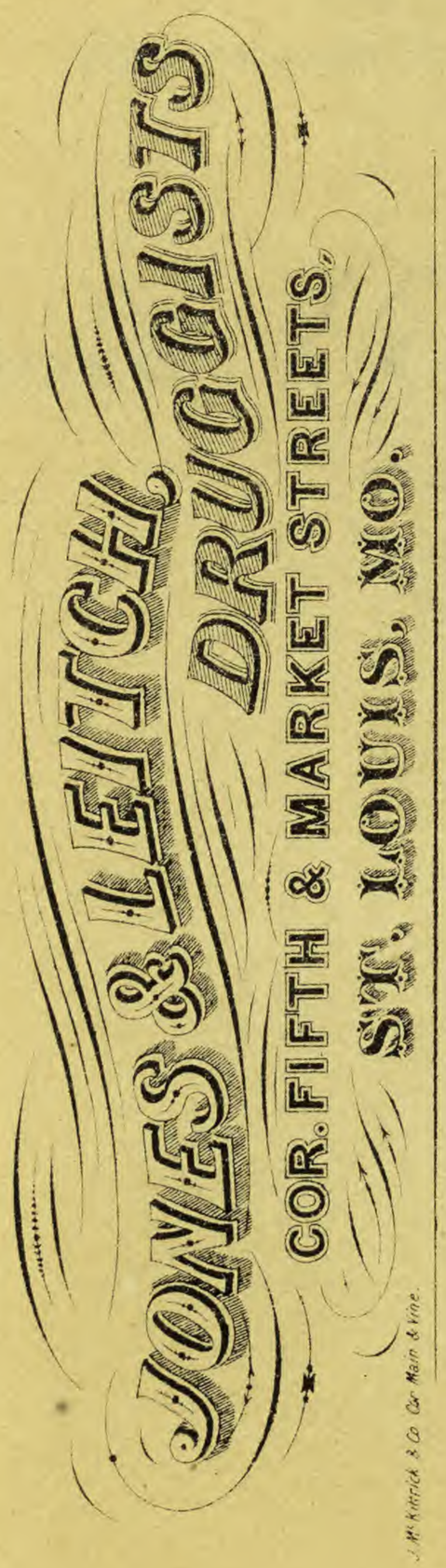

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